

University of North Texas (UNT)
Mathematics and Science Initiative

Activity: Initial Mathematics and Science Teacher Education Programs

Goal area of the activity: Improving teacher quality

Summary of work

In 2001, Texas changed its levels of teacher certification from elementary and secondary to EC-4, 4-8, and 8-12 and its areas of science preparation from single-subject and composite to Life Science and Physical Science. UNT developed new programs to meet Texas standards for 8-12 teachers of science and mathematics. The revised academic majors and related course work in education address the Texas standards and enable candidates to meet performance standards mandated by the state certification testing program and by the institution's assessment system, which is based on standards of the Interstate New Teacher Assessment and Support Consortium (INTASC) and teacher preparation standards of the National Council of Teachers of Mathematics (NCTM) and the National Science Teachers Association (NSTA).

Through an initiative of the Deans of Arts and Sciences and Education, UNT added to its faculty a science educator in the Department of Chemistry and a mathematics educator in the Department of Mathematics. Their efforts have increased collaboration to recruit mathematics and science majors into teaching and to involve more Arts and Sciences faculty in teacher education program development and delivery.

UNT's baccalaureate teacher education programs enable all candidates to complete two semesters of internship in a professional development school. Post-baccalaureate candidates complete 16 weeks of student teaching in two placements or a supervised internship in their classrooms. A recently developed online secondary post-baccalaureate program is attracting into teaching increased numbers of mid-career teachers whose baccalaureate major was in mathematics or science. .

Purpose of activity: To increase the quality and quantity of highly qualified teachers of science and mathematics in North Texas and beyond.

Accomplishments/Results

In 2001-2002, UNT prepared 23 teachers of 8-12 science and 7 teachers of 8-12 mathematics through baccalaureate and post-baccalaureate programs. NCATE accreditation was continued; the 8-12 mathematics programs were recognized by NCTM.

Plans for next 12 months

Recruit more Arts and Sciences students as teacher candidates
Fully implement the revised majors in the College of Arts and Sciences
Differentiate the online program courses through discipline specific pedagogical content
Involve district mentors with the UNT support teams for post-baccalaureate candidates